Bryan W. Shaw, Ph.D., Chairman
Buddy Garcia, Commissioner
Carlos Rubinstein, Commissioner
Mark R. Vickery, P.G., Executive Director





TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

December 5, 2011

MR TERRY L HURLBURT SENIOR VICE PRESIDENT ENTERPRISE PRODUCTS OPERATING LLC PO BOX 4324 HOUSTON TX 77210-4324

Re: Permit Application

Permit Number: 97022 Marine Loading Facility Houston, Harris County

Regulated Entity Number: RN102580834 Customer Reference Number: CN603211277 11 DEC 13 PM 5: 2
AIR PERMITS SECTIO

Dear Mr. Hurlburt:

The executive director has completed the technical review of your application and has prepared a preliminary decision and draft permit.

You are now required to publish notice of your proposed activity. To help you meet the regulatory requirements associated with this notice, we have included the following items:

- Notices for Newspaper Publication (Examples A and B)
- Public Notice Checklist
- Instructions for Public Notice
- Affidavit of Publication for Air Permitting (Form TCEQ-20533) and Alternative Language Affidavit of Publication for Air Permitting (Form TCEQ-20534)
- Notification List
- Draft Permit

Please note that it is **very important** that you follow **all** directions in the enclosed instructions. If you do not, you may be required to republish the notice. A common mistake is the unauthorized changing of notice wording or font. If you have any questions, please contact us before you proceed with publication.

A "Public Notice Checklist" is enclosed which notes the time limitations for each step of the public notice process. This checklist should be used as a tool in conjunction with the enclosed, detailed instructions.

Mr. Terry L. Hurlburt Page 2 December 5, 2011

Re: Permit Number 97022

If you do not comply with all requirements described in the instructions, further processing of your application may be suspended or the agency may take other actions.

If you have any questions regarding publication requirements, please contact the Office of the Chief Clerk at (512) 239-3300. If you have any other questions, please contact Ms. Jill Parkes at (512) 239-1310.

Sincerely,

Bridget C. Bohac

Chief Clerk

Office of the Chief Clerk

Budget C. Bohar

Texas Commission on Environmental Quality

BB/JP/

Enclosures

cc: Bureau Chief Pollution Control & Prevention, Environmental Health Division, Houston Department of Health and Human Services, Houston

Director, Environmental Public Health Division, Harris County Public Health and Environmental Services, Pasadena

Air Section Manager, Region 12 - Houston

Air Permits Section Chief, New Source Review, Section (6PD-R), U.S. Environmental Protection Agency, Region 6, Dallas

Project Number: 167275

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY



EXAMPLE A

NOTICE OF APPLICATION AND PRELIMINARY DECISION FOR AN AIR QUALITY PERMIT

PROPOSED PERMIT NUMBER: 97022

APPLICATION AND PRELIMINARY DECISION. Enterprise Products Operating LLC, has applied to the Texas Commission on Environmental Quality (TCEQ) for issuance of Air Quality Permit Number 97022, which would authorize the equipment and operations of the EPOLP Houston Ship Channel Marine Loading Facility located at 15602 Jacintoport Boulevard, Houston, Harris County, Texas 77015. This application was submitted to the TCEQ on July 11, 2011. The facility will emit the following contaminants: nitrogen oxides, carbon monoxide, sulfur dioxide, organic compounds, and particulate matter including particulate matter with diameters of 10 microns or less and 2.5 microns or less.

The executive director has completed the technical review of the application and prepared a draft permit which, if approved, would establish the conditions under which the facility must operate. The executive director has made a preliminary decision to issue the permit because it meets all rules and regulations. The permit application, executive director's preliminary decision, and draft permit will be available for viewing and copying at the TCEQ Central Office, the TCEQ Houston Regional Office, and at the North Channel Branch Library, 15741 Wallisville Road, Houston, Harris County, Texas, beginning the first day of publication of this notice. The facility's compliance file, if any exists, is available for public review at the TCEQ Houston Regional Office, 5425 Polk Street, Suite H, Houston, Texas.

PUBLIC COMMENT/PUBLIC MEETING. You may submit public comments or request a public meeting about this application. The purpose of a public meeting is to provide the opportunity to submit comment or to ask questions about the application. The TCEQ will hold a public meeting if the executive director determines that there is a significant degree of public interest in the application or if requested by a local legislator. A public meeting is not a contested case hearing. You may submit additional written public comments within 30 days of the date of newspaper publication of this notice in the manner set forth in the AGENCY CONTACTS AND INFORMATION paragraph below.

RESPONSE TO COMMENTS AND EXECUTIVE DIRECTOR ACTION. After the deadline for public comments, the executive director will consider the comments and prepare a response to all relevant and material or significant public comments. Because no timely hearing requests have been received, after preparing the response to comments, the executive director may then issue final approval of the application. The response to comments, along with the executive director's decision on the application will be mailed to everyone who submitted public comments or is on a mailing list for this application, and will be posted electronically to the Commissioners' Integrated Database (CID).

INFORMATION AVAILABLE ONLINE. When they become available, the executive director's response to comments and the final decision on this application will be accessible through the Commission's Web site at www.tceq.texas.gov/goto/cid. Once you have access to the CID using the above link, enter the permit number for this application which is provided at the top of this notice. This link to an electronic map of the site or facility's general location is provided as a public courtesy and not part of the application or notice. For exact location, refer to application. http://www.tceq.texas.gov/assets/public/hb610/index.html?lat=29.75&lng=-95.1333&zoom=13&type=r.

MAILING LIST. You may ask to be placed on a mailing list to obtain additional information on this application by sending a request to the Office of the Chief Clerk at the address below.

AGENCY CONTACTS AND INFORMATION. Public comments and requests must be submitted either electronically at www.tceq.texas.gov/about/comments.html, or in writing to the Texas Commission on Environmental Quality, Office of the Chief Clerk, MC-105, P.O. Box 13087, Austin, Texas 78711-3087. If you communicate with the TCEQ electronically, please be aware that your email address, like your physical mailing address, will become part of the agency's public record. For more information about this permit application or the permitting process, please call the Public Education Program toll free at 1-800-687-4040. Si desea información en Español, puede llamar al 1-800-687-4040.

Further information may also be obtained from Enterprise Products Operating LLC at the address stated above or by calling Mr. Christopher Benton, Senior Environmental Specialist at (713) 381-5437.

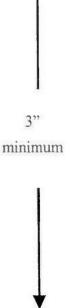
Notice Issuance Date: December 5, 2011

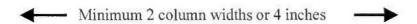
Example B

Publication Elsewhere in the Newspaper:

TO ALL INTERESTED PERSONS AND PARTIES:

Enterprise Products Operating LLC, has applied to the Texas Commission on Environmental Quality (TCEQ) for issuance of Air Quality Permit Number 97022, which would authorize the equipment and operations of the EPOLP Houston Ship Channel Marine Loading Facility located at 15602 Jacintoport Boulevard, Houston, Harris County, Texas 77015. Additional information concerning this application is contained in the public notice section of this newspaper.





Public Notice Checklist Notice of Application and Preliminary Decision for an Air Quality Permit (2nd Notice)

The following tasks must be completed for public notice. If publication in an alternative language is required, please complete the tasks for both the English and alternative language publications. Detailed instructions are included in the "Instructions for Public Notice" section of this package.

Within 33 calendar days after date of this letter

Publish Notice of Application and Preliminary Decision for an Air Quality Permit in the same newspaper(s) in which you published Notice of Receipt of Intent to Obtain Permit for this application.

- Example A must be published in "public notice" section of newspaper. Review for accuracy prior to publishing.

- Example B (if applicable) must be published in prominent location (other than "public notice") in same issue of newspaper

Provide copy of the complete application (including any subsequent revisions) and the executive director's preliminary decision (including the draft permit) at a public place for review and copying. Keep them there for duration of the designated comment period.

First day of newspaper publication

Review published newspaper notice for accuracy. If errors, contact Air Permits Division. Ensure copy of the complete application (including any subsequent revisions) and the executive director's preliminary decision (including the draft permit) are at the public place.

Within 10 business days after date of publication

Mail original newspaper clippings showing publication date and newspaper name to:

Texas Commission on Environmental Quality

Office of the Chief Clerk, MC-105

Attn: Notice Team P.O. Box 13087

Austin, Texas 78711-3087

Mail photocopies of newspaper clippings showing publication date and newspaper name to persons listed on *Notification List*.

Within 30 calendar days after date of publication

Mail original affidavit of publication for air permitting and alternative language affidavit of publication for air permitting (if applicable) to:

Texas Commission on Environmental Quality

Office of the Chief Clerk, MC-105

Attn: Notice Team P.O. Box 13087

Austin, Texas 78711-3087

Mail photocopies of affidavits to persons listed on Notification List.

Within 10 business days after end of the designated comment period

Mail Public Notice Verification Form to:

Texas Commission on Environmental Quality

Office of the Chief Clerk, MC-105

Attn: Notice Team P.O. Box 13087

Austin, Texas 78711-3087

Mail photocopies of Public Notice Verification Form to persons listed on Notification List.

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY



Instructions for Public Notice For New Source Review Air Permit

Notice of Application and Preliminary Decision

We have completed the technical review of your application and issued a preliminary decision. You must comply with the following instructions:

Review Notice

Included in the notice is all of the information which the commission believes is necessary to effectuate compliance with applicable public notice requirements. Please read it carefully and notify the Texas Commission on Environmental Quality (TCEQ) immediately if it contains any errors or omissions. You are responsible for ensuring the accuracy of all information published. You may not change the text of the notice without prior approval from the TCEQ.

Newspaper Notice

- You must publish the enclosed *Notice of Application and Preliminary Decision for an Air Quality Permit* within **33 calendar days** after the date this information was mailed to you (see date of letter).
- You must publish the enclosed *Notice of Application and Preliminary Decision for an Air Quality Permit* at your expense, in the same newspaper(s) in which you published the *Notice of Receipt and Intent to Obtain Permit* for this application. The newspaper must be a newspaper that is of general circulation in the municipality where the facility is or will be located. If the facility is not located within a municipality, the newspaper must be of general circulation in the municipality nearest the location.
- You must publish this notice in one issue of any applicable newspaper.
- You will find two example notices enclosed in this package. Example A must be published in the "public notice" section of the newspaper. The phrase "Example A" is not required to be published. Example B must be published in the same issue of the newspaper as Example A; however, it must be published in a prominent location (other than the public notice section). Example B refers the public to the "public notice" section of the newspaper where Example A provides more information regarding the permit application.

- Example B must be a total of at least 6 column inches (standard advertising units) with a height of at least 3 inches and a horizontal dimension of 2 column widths. If the newspaper chosen does not use standard advertising units for measurement, the notice must be at least 12 square inches with the shortest side of at least 3 inches.
- The bold text of the enclosed notice **must** be printed in the newspaper in a font style or size that distinguishes it from the rest of the notice (i.e., **bold**, *italics*). Failure to do so may require re-notice.

Alternative Language Notice

In certain circumstances, applicants for air permits must complete notice in alternative languages.

- Public notice rules require the applicant to determine whether a bilingual program is
 required at either the elementary or middle school nearest to the facility or proposed
 facility location. Bilingual education programs are determined on a district-wide basis.
 When students who are required to attend either school are eligible to be enrolled in a
 bilingual education program, some alternative language notice is required (newspaper
 notice).
- Since the school district, and not the schools, must provide the bilingual education program, these programs do not have to be located at the elementary or middle school nearest to the facility or proposed facility to trigger the alternative language notice requirement. If there are students who would normally attend the nearest schools eligible to be taught in a bilingual education program at a different location, alternative language notice is required.
- If triggered, publications of alternative language notices must be made in a newspaper or publication printed primarily in each language taught in the bilingual education program. The same newspaper(s) used for Notice of Receipt and Intent to Obtain Permit must be used for publication of the Notice of Application and Preliminary Decision for an Air Quality Permit. This notice is required if such a newspaper or publication exists in the municipality or the county where the facility is or will be located.
- The applicant must demonstrate a good faith effort to identify a newspaper or publication in the required language. If a newspaper or publication of general circulation published at least once a month in such language cannot be found, publishing in that language is not required, but signs must still be posted adjacent to each English language sign.
- Publication in an alternative language section or insertion within an English language newspaper does not satisfy these requirements.

- The applicant has the burden to demonstrate compliance with these requirements. You must fill out the *Public Notice Verification Form (Form TCEQ-20244)* indicating your compliance with the requirements regarding publication in an alternative language. This form is available at www.tceq.texas.gov/permitting/air/nav/air publicnotice.html.
- It is suggested the applicant work with the local school district to do the following:
 - (a) determine if a bilingual program is required in the district;
 - (b) determine which language is required by the bilingual program;
 - (c) locate the nearest elementary and middle schools; and
 - (d) determine if any students attending either school are entitled to be enrolled in a bilingual educational program.
- If you determine that you must meet the alternative language notice requirements, you are responsible for ensuring that the publication in the alternative language is complete and accurate in that language. Since the most common bilingual programs are in Spanish, the TCEQ has provided example Spanish notice templates for your use. All italic notes should be replaced with the corresponding Spanish translations for the specific application and published in the alternative language publication. Electronic versions of the Spanish templates are available through the Air Permits Division Web site at www.tceq.texas.gov/goto/air/publicnotice.
- If you are required to publish notice in a language other than Spanish, you must translate the entire public notice at your own expense.

Public Comment Period

- The public comment period will last at least 30 calendar days after publication of the last notice.
- The comment period will be longer if the last day of the public comment period ends on a weekend or a holiday. In this case, the comment period will end on the next business day.
- The comment period for the permit may lengthen depending on whether a public meeting is held. If a public meeting is held, the comment period will be extended to the later of either the date of the public meeting or the end of the second notice period.

Proof of Publication

- Check each publication to ensure that the articles were accurately published. If a notice was not published correctly you may be required to republish.
- For each newspaper in which you published, you must submit **original newspaper clippings or tear sheets** of each published notice which shows the complete notice that was published, the date of publication, and the name of the newspaper to the TCEQ Office of the Chief Clerk within **10 business days** after the date of publication.

- You must submit an original affidavit of publication for air permitting and alternate language affidavit of publication for air permitting (if applicable) to the Office of the Chief Clerk within 30 calendar days after the date of publication. You must use the enclosed affidavit forms. The affidavits must clearly identify the applicant's name and permit number. You are encouraged to submit the affidavit with the original newspaper clippings described above.
- You must submit the *Public Notice Verification Form (Form TCEQ-20244)* to the Office of the Chief Clerk within 10 business days of the end of this public comment period. You must use this form to certify that you have met bilingual notice requirements. This form is available at www.tceq.texas.gov/permitting/air/nav/air_publicnotice.html.
- The original affidavits of publication, *Public Notice Verification Form*, and original newspaper clippings of the published notices must be mailed to:

Texas Commission on Environmental Quality
Office of the Chief Clerk, MC-105
Attn: Notice Team
P.O. Box 13087
Austin, Texas 78711-3087

- Please ensure that the affidavit and newspaper clippings you send to the Chief Clerk are
 originals and that all blanks on the affidavit are filled in correctly. Photocopies of
 newspaper clippings and affidavits will not be accepted.
- Photocopies of newspaper clippings, affidavits, and verifications must also be sent to those listed on the enclosed *Notification List* within the deadlines specified above.

Failure to Publish and Submit Proof of Publication

You must meet all publication requirements. If you fail to publish the notice or submit proof of publication on time, the TCEQ may suspend further processing on your application or take other actions.

Sign Posting

Signs must remain in place and be legible and be visible from the street for the entire duration of the comment period, from the beginning of the *Notice of Receipt and Intent* until the close of the comment period after publication of the *Notice of Application and Preliminary Decision*.

Application in a Public Place

 You must provide a copy of the complete application (including any subsequent revisions) and the executive director's preliminary decision (including the draft permit), at a public place for review and copying by the public. This place must be in the county in which the facility is located or proposed to be located.

- A public place is one that is publicly owned or operated (ex: libraries, county courthouses, or city halls.)
- This copy must be accessible to the public for review and copying. The copy must be available beginning on the first day of newspaper publication and remain in place until the commission has taken action on the application or the commission refers issues to the State Office of Administrative Hearings.
- If the application is submitted to the TCEQ with information marked as "CONFIDENTIAL," you are required to indicate which specific portions of the application are not being made available to the public. These portions of the application must be accompanied with the following statement: "Any request for portions of this application that are marked as confidential must be submitted in writing, pursuant to the Public Information Act, to the Texas Commission on Environmental Quality, Public Information Coordinator, MC-197, P.O. Box 13087, Austin, Texas 78711-3087."
- You must submit verification of file availability using the *Public Notice Verification*Form (Form TCEQ-20244) within 10 business days after end of the publications' designated comment period. Do not submit the form verifying that the application was in a public place until after the comment period is complete. If a public meeting is held or second notice is required causing the public comment period to be extended, at a later date you will be required to verify that the application was in a public place during the entire public comment period. This form is available at www.tceq.texas.gov/permitting/air/nav/air publicnotice.html.

General Information

When contacting the Commission regarding this application, please refer to the permit number at the top of the *Notice of Application and Preliminary Decision*.

If you have questions or need assistance regarding publication requirements, please contact the Office of the Chief Clerk at (512) 239-3300 or the project reviewer listed in the cover letter.

TCEQ-Office of the Chief Clerk MC-105 Attn: Notice Team P.O. Box 13087 Austin, Texas 78711-3087

Applicant Name: Enterpris	se Products Operating LLC
Permit No.: 97022	

AFFIDAVIT OF PUBLICATION FOR AIR PERMITTING

STATE OF TEXAS	§
COUNTY OF	§
Before me, the undersigned authority, on thi	s day personally appeared
	, who being by me duly sworn,
(name of newspaper representative)	
deposes and says that (s)he is the	
(title	of newspaper representative)
of the	; that said newspaper is generally circulated
(name of newspaper)	
in	, Texas;
(in the municipality or nearest municipality	to the location of the facility or the proposed facility)
	wspaper representative's signature)
Subscribed and sworn to before me this the	, day of, 20,
to certify which witness my hand and seal o	f office.
(Seal)	Notary Public in and for the State of Texas
	Print or Type Name of Notary Public
	My Commission Expires

TCEQ-Office of the Chief Clerk MC-105 Attn: Notice Team P.O. Box 13087

Austin, Texas 78711-3087

Applicant Name: Enterprise Products Operating LLC	_
Permit No.: 97022	

ALTERNATIVE LANGUAGE AFI	FIDAVIT OF PUBLICATION	FOR AIR PERMITTING
STATE OF TEXAS	§	
COUNTY OF	§	
Before me, the undersigned authority, on thi	s day personally appeared	
(name of newspaper or publication represen	, who being	by me duly sworn, deposes
and says that (s)he is the	(title of newspaper or publication r	epresentative)
of the	; that said newspaper or pub	lication is generally circulated
in		, Texas;
that the attached notice was published in said		
	(newspaper or publication repr	esentative's signature)
Subscribed and sworn to before me this the	day of	, 20,
to certify which witness my hand and seal o	f office.	
	Notary Public in and for the State of	of Texas
(Seal)		
	Print or Type Name of Notary Pub	lic
	My Commission Expires	

Notification List

It is the responsibility of the applicant to furnish the following offices with copies of the notices published, the *Affidavit of Publication for Air Permitting*, the *Alternative Language Affidavit of Publication for Air Permitting* (if applicable), and a completed copy of the *Public Notice Verification Form (Form TCEQ-20244)*. Originals should be sent to the Texas Commission on Environmental Quality, Office of the Chief Clerk, MC-105, P.O. Box 13087, Austin, Texas 78711-3087. Copies should be sent to the following:

U.S. Environmental Protection Agency Region 6 Attn: Air Permits Section (6PD-R) 1445 Ross Avenue, Suite 1200 Dallas, Texas 75202-2733

Texas Commission on Environmental Quality Houston Regional Office 5425 Polk Street, Suite H Houston, Texas 77023-1452 Texas Commission on Environmental Quality Office of Air Air Permits Division, MC-163 Ms. Jill Parkes P.O. Box 13087 Austin, Texas 78711-3087

Bureau Chief Pollution Control & Prevention Environmental Health Division Houston Department of Health and Human Services 7411 Park Place Blvd Houston, Texas 77087-4441

Director
Environmental Public Health Division
Harris County Public Health and
Environmental Services
101 South Richey Street, Suite G
Pasadena, Texas 77506-

SPECIAL CONDITIONS

Permit Number 97022

- 1. This permit authorizes emissions only from those points listed in the attached table entitled "Emission Sources Maximum Allowable Emission Rates" and the facilities covered by this permit are authorized to emit subject to the emission rate limits on that table and other operating requirements specified in the special conditions.
- 2. Non-fugitive emissions from relief valves, safety valves, or rupture discs of gases containing volatile organic compounds (VOC) at a concentration of greater than 1 percent are not authorized by this permit unless authorized on the MAERT. Any releases directly to atmosphere from relief valves, safety valves, or rupture discs of gases containing VOC at a concentration greater than 1 weight percent are not consistent with good practice for minimizing emissions.

Federal Applicability

3. These facilities shall comply with all applicable requirements of the U.S. Environmental Protection Agency (EPA) regulations on Standards of Performance for New Stationary Sources promulgated for Small Industrial-Commercial-Institutional Steam Generating Units in Title 40 Code of Federal Regulations Part 60 (40 CFR Part 60), Subparts A and Dc.

Flares

- 4. The flare shall be designed and operated in accordance with the following requirements:
 - A. The flare system shall be designed such that the combined assist natural gas and waste stream to the flare meets the 40 CFR § 60.18 specifications of minimum heating value and maximum tip velocity under normal, upset, and maintenance flow conditions.
 - The heating value and velocity requirements shall be satisfied during operations authorized by this permit. Flare testing per 40 CFR § 60.18(f) may be requested by the appropriate regional office to demonstrate compliance with these requirements.
 - B. The flare shall be operated with a flame present at all times and/or have a constant pilot flame. The pilot flame shall be continuously monitored by a thermocouple or an infrared monitor. The time, date, and duration of any loss of pilot flame shall be recorded. Each monitoring device shall be accurate to, and shall be calibrated at a frequency in accordance with, the manufacturer's specifications

- C. The flare shall be operated with no visible emissions except periods not to exceed a total of five minutes during any two consecutive hours. This shall be ensured by the use of air assist to the flare.
- D. The permit holder shall install a continuous flow monitor and composition analyzer that provide a record of the vent stream flow and composition to the flare. The flow monitor sensor and analyzer sample points shall be installed in the vent stream as near as possible to the flare inlet such that the total vent stream to the flare is measured and analyzed. Readings shall be taken at least once every 15 minutes and the average hourly values of the flow and composition shall be recorded each hour.

The monitors shall be calibrated on an annual basis to meet the following accuracy specifications: the flow monitor shall be $\pm 5.0\%$, temperature monitor shall be $\pm 2.0\%$ at absolute temperature, and pressure monitor shall be ± 5.0 mm Hg;

Calibration of the analyzer shall follow the procedures and requirements of Section 10.0 of 40 CFR Part 60, Appendix B, Performance Specification 9, as amended through October 17, 2000 (65 FR 61744), except that the multi-point calibration procedure in Section 10.1 of Performance Specification 9 shall be performed at least once every calendar quarter instead of once every month, and the mid-level calibration check procedure in Section 10.2 of Performance Specification 9 shall be performed at least once every calendar week instead of once every 24 hours. The calibration gases used for calibration procedures shall be in accordance with Section 7.1 of Performance Specification 9. Net heating value of the gas combusted in the flare shall be calculated according to the equation given in 40 CFR §60.18(f)(3) as amended through October 17, 2000 (65 FR 61744).

The monitors and analyzers shall operate as required by this section at least 95% of the time when the flare is operational, averaged over a rolling 12 month period. Flared gas net heating value and actual exit velocity determined in accordance with 40 CFR $\S60.18(f)(4)$ shall be recorded at least once every 15 minutes. Hourly mass emission rates shall be determined and recorded using the above readings and the emission factors used in the permit application (PI-1 dated July 7, 2011).

- 5. Emissions from process vents shall be routed to the flare.
- 6. Flare EPN FLARE shall be taken out of service upon commencement of operation of Flare EPN FLARE2, prior to the start of operation of the second refrigeration/dehydration unit.

Heaters

7. Heater EPNs HTR1, HTR2, HTR3, and C-1 shall be fired with natural gas containing no more than 5 grains of total sulfur per 100 dry standard cubic feet (dscf).

8. NO_x and CO emissions from Heater EPNs HTR1, HTR2, and HTR3 shall not exceed the following during routine operations:

0.035 lb NO_x/MMBtu on an hourly average 0.06 lb CO/MMBtu on an hourly average

9. NO_x and CO emissions from Heater EPN C-1 shall not exceed the following during routine operations:

0.10 lb NO_x/MMBtu on an hourly average 0.08 lb CO/MMBtu on an hourly average

- 10. Heater EPN C-1 shall be taken out of service upon commencement of operation of Heater EPN HTR3, prior to the start of operation of the second refrigeration/dehydration unit.
- 11. Routine activities of heater EPNs HTR1, HTR2, and HTR3 are limited to two heaters operating simultaneously.

Wet Surface Air Cooler

12. Cooling water from the WSAC system shall be sampled once a week for total dissolved solids (TDS) and once a day for conductivity. Dissolved solids in the cooling water drift are considered to be emitted as PM₁₀/PM_{2.5}. The data shall result from collection of water samples from the WSAC feed water and represent the water being cooled in the system. Water samples should be capped upon collection, and transferred to a laboratory area for analysis. The analysis method for TDS shall be EPA Method 160.1, ASTM D5907, and SM 2540 C [SM - 19th edition of Standard Methods for Examination of Water]. The analysis method for Conductivity shall be ASTM D1125-95A and SM2510 B. Use of an alternative method shall be approved by the TCEQ Regional Director prior to its implementation.

Process Fugitives

13. Piping, Valves, Connectors, Pumps, Agitators and Compressors, in contact with VOC - Intensive Directed Maintenance - 28MID

Except as may be provided for in the special conditions of this permit, the following requirements apply to the above-referenced equipment:

A. The requirements of paragraphs F and G shall not apply (1) where the volatile organic compounds (VOC) has an aggregate partial pressure or vapor pressure of less than 0.044 pounds per square inch, absolute (psia) at 68°F or (2) operating pressure is at

least 5 kilopascals (0.725 psi) below ambient pressure. Equipment excluded from this condition shall be identified in a list or by one of the methods described below to be made available upon request.

The exempted components may be identified by one or more of the following methods:

- (1) piping and instrumentation diagram (PID);
- (2) a written or electronic database or electronic file;
- (3) color coding;
- (4) a form of weatherproof identification; or
- (5) designation of exempted process unit boundaries.
- B. Construction of new and reworked piping, valves, pump systems, agitators, and compressor systems shall conform to applicable American National Standards Institute (ANSI), American Petroleum Institute (API), American Society of Mechanical Engineers (ASME), or equivalent codes.
- C. New and reworked underground process pipelines shall contain no buried valves such that fugitive emission monitoring is rendered impractical. New and reworked buried connectors shall be welded.
- D. To the extent that good engineering practice will permit, new and reworked valves and piping connections shall be so located to be reasonably accessible for leak-checking during plant operation. Difficult-to-monitor and unsafe-to-monitor valves, as defined by Title 30 Texas Administrative Code Chapter 115 (30 TAC Chapter 115), shall be identified in a list to be made available upon request. The difficult-to-monitor and unsafe-to-monitor valves may be identified by one or more of the methods described in subparagraph A above.
- E. New and reworked piping connections shall be welded or flanged. Screwed connections are permissible only on piping smaller than two-inch diameter. Gas or hydraulic testing of the new and reworked piping connections at no less than operating pressure shall be performed prior to returning the components to service or they shall be monitored for leaks using an approved gas analyzer within 15 days of the components being returned to service. Adjustments shall be made as necessary to obtain leak-free performance. Connectors shall be inspected by visual, audible, and/or olfactory means at least weekly by operating personnel walk-through.

Each open-ended valve or line shall be equipped with an appropriately sized cap, blind flange, plug, or a second valve to seal the line. Except during sampling, both valves shall be closed. If the isolation of equipment for hot work or the removal of a component for repair or replacement results in an open ended line or valve, it is exempt from the requirement to install a cap, blind flange, plug, or second valve for 72 hours. If the repair or replacement is not completed within 72 hours, the permit holder must complete either of the following actions within that time period;

- (1) a cap, blind flange, plug, or second valve must be installed on the line or valve; or
- (2) the open-ended valve or line shall be monitored once for leaks above background for a plant or unit turnaround lasting up to 45 days with an approved gas analyzer and the results recorded. For all other situations, the open-ended valve or line shall be monitored once by the end of the 72 hours period following the creation of the open ended line and monthly thereafter with an approved gas analyzer and the results recorded. For turnarounds and all other situations, leaks are indicated by readings of 500 ppmv and must be repaired within 24 hours or a cap, blind flange, plug, or second valve must be installed on the line or valve.
- F. Accessible valves shall be monitored by leak checking for fugitive emissions at least quarterly using an approved gas analyzer with a directed maintenance program. Sealless/leakless valves (including, but not limited to, welded bonnet bellows and diaphragm valves) and relief valves equipped with a rupture disc upstream or venting to a control device are not required to be monitored. For valves equipped with rupture discs, a pressure-sensing device shall be installed between the relief valve and rupture disc to monitor disc integrity. All leaking discs shall be replaced at the earliest opportunity but no later than the next process shutdown.

 A check of the reading of the pressure-sensing device to verify disc integrity shall be performed at least quarterly and recorded in the unit log or equivalent. Pressure-sensing devices that are continuously monitored with alarms are exempt from recordkeeping requirements specified in this paragraph.

An approved gas analyzer shall conform to requirements listed in Method 21 of 40 CFR part 60, appendix A. The gas analyzer shall be calibrated with methane. In addition, the response factor of the instrument for a specific VOC of interest shall be determined and meet the requirements of Section 8 of Method 21. If a mixture of VOCs are being monitored, the response factor shall be calculated for the average composition of the process fluid. A calculated average is not required when all of the compounds in the mixture have a response factor less than 10 using methane. If a response factor less than 10 cannot be achieved using methane, then the instrument may be calibrated with one of the VOC to be measured or any other VOC so long as the instrument has a response factor of less than 10 for each of the VOC to be measured.

A directed maintenance program shall consist of the repair and maintenance of components assisted simultaneously by the use of an approved gas analyzer such that a minimum concentration of leaking VOC is obtained for each component being maintained. A first attempt to repair the leak must be made within 5 days. Records of the first attempt to repair shall be maintained. Replaced components shall be remonitored within 15 days of being placed back into VOC service.

G. All new and replacement pumps, compressors, and agitators shall be equipped with a shaft sealing system that prevents or detects emissions of VOC from the seal. These seal systems need not be monitored and may include (but are not limited to) dual pump seals with barrier fluid at higher pressure than process pressure, seals degassing to vent control systems kept in good working order, or seals equipped with an automatic seal failure detection and alarm system. Submerged pumps or sealless pumps (including, but not limited to, diaphragm, canned, or magnetic-driven pumps) may be used to satisfy the requirements of this condition and need not be monitored.

All other pump, compressor, and agitator seals shall be monitored with an approved gas analyzer at least quarterly.

- H. Damaged or leaking valves, connectors, compressor seals, pump seals, and agitator seals found to be emitting VOC in excess of 500 parts per million by volume (ppmv) or found by visual inspection to be leaking (e.g., dripping process fluids) shall be tagged and replaced or repaired. A leaking component shall be repaired as soon as practicable, but no later than 15 days after the leak is found. If the repair of a component would require a unit shutdown that would create more emissions than the repair would eliminate, the repair may be delayed until the next scheduled shutdown. All leaking components which cannot be repaired until a scheduled shutdown shall be identified for such repair by tagging. A listing of all components that qualify for delay of repair shall be maintained on a delay of repair list. The cumulative daily emissions from all components on the delay of repair list shall be estimated by multiplying by 24 the mass emission rate for each component calculated in accordance with the instructions in 30 TAC 115.782 (c)(1)(B)(i)(II). The calculations of the cumulative daily emissions from all components on the delay of repair list shall be updated within ten days of when the latest leaking component is added to the delay of repair list. When the cumulative daily emission rate of all components on the delay of repair list times the number of days until the next scheduled unit shutdown is equal to or exceeds the total emissions from a unit shutdown as calculated in accordance with 30 TAC 115.782 (c)(1)(B)(i)(I), the TCEQ Regional Manager and any local programs shall be notified and may require early unit shutdown or other appropriate action based on the number and severity of tagged leaks awaiting shutdown. This notification shall be made within 15 days of making this determination.
- I. In lieu of the monitoring frequency specified in paragraph F, valves in gas and light liquid service may be monitored on a semiannual basis if the percent of valves leaking for two consecutive quarterly monitoring periods is less than 0.5 percent.

Valves in gas and light liquid service may be monitored on an annual basis if the percent of valves leaking for two consecutive semiannual monitoring periods is less than 0.5 percent.

If the percent of valves leaking for any semiannual or annual monitoring period is 0.5 percent or greater, the facility shall revert to quarterly monitoring until the facility again qualifies for the alternative monitoring schedules previously outlined in this paragraph.

J. The percent of valves leaking used in paragraph I shall be determined using the following formula:

$$(V1 + Vs) \times 100/Vt = Vp$$

Where:

- V1 = the number of valves found leaking by the end of the monitoring period, either by Method 21 or sight, sound, and smell.
- Vs = the number of valves for which repair has been delayed and are listed on the facility shutdown log.
- Vt = the total number of valves in the facility subject to the monitoring requirements, as of the last day of the monitoring period, not including nonaccessible and unsafe to-monitor valves.
- Vp = the percentage of leaking valves for the monitoring period.
- K. Records of repairs shall include date of repairs, repair results, justification for delay of repairs, and corrective actions taken for all components. Records of instrument monitoring shall indicate dates and times, test methods, and instrument readings. The instrument monitoring record shall include the time that monitoring took place for no less than 95% of the instrument readings recorded. Records of physical inspections shall be noted in the operator=s log or equivalent.
- Compliance with the requirements of this condition does not assure compliance with requirements of 30 TAC Chapter 115, an applicable New Source Performance Standard, or an applicable National Emission Standard for Hazardous Air Pollutants and does not constitute approval of alternative standards for these regulations.
- 14. In addition to the weekly physical inspection required by Item E of Special Condition 13, all accessible connectors in gas\vapor and light liquid service shall be monitored quarterly with an approved gas analyzer in accordance with Items F thru J of Special Condition 13. (28CNTQ)

A. Connectors may be monitored on a semiannual basis if the percent of connectors leaking for two consecutive quarterly monitoring periods is less than 0.5 percent.

Connectors may be monitored on an annual basis if the percent of connectors leaking for two consecutive semiannual monitoring periods is less than 0.5 percent.

If the percent of connectors leaking for any semiannual or annual monitoring period is 0.5 percent or greater, the facility shall revert to quarterly monitoring until the facility again qualifies for the alternative monitoring schedules previously outlined in this paragraph.

B. The percent of connectors leaking used in paragraph A shall be determined using the following formula:

$$(C1 + Cs) \times 100/Ct = Cp$$

Where:

- C1 = the number of connectors found leaking by the end of the monitoring period, either by Method 21 or sight, sound, and smell.
- Cs = the number of connectors for which repair has been delayed and are listed on the facility shutdown log.
- Ct = the total number of connectors in the facility subject to the monitoring requirements, as of the last day of the monitoring period, not including nonaccessible and unsafe-to-monitor connectors.

Cp = the percentage of leaking connectors for the monitoring period.

Loading

- 15. A closed-loop pressurized loading system shall be utilized when loading VOCs into marine vessels.
- 16. Before loading a marine vessel with a VOC, the owner or operator of the marine terminal shall verify that the marine vessel has passed an annual vapor tightness test as specified in 40 CFR §63.565(c) (September 19, 1995) or 40 CFR §61.304(f) (October 17, 2000).
- 17. After completion of loading and unloading activities, residual material in the loading arms shall be blown down into the marine vessel or to the flare.

18. Residual material blow down from marine loading and emissions from process vents may not vent to the flare simultaneously.

Maintenance, Startup, and Shutdown

19. This permit authorizes the emissions from startup and shutdowns of heaters HTR1, HTR2, and HTR3.

The performance of each planned MSS activity and the emissions associated with it shall be recorded and include at least the following information:

- A. the process unit at which emissions from the MSS activity occurred, including the emission point number and common name of the process unit;
- B. the type of planned MSS activity and the reason for the planned activity;
- C. the common name and the facility identification number, if applicable, of the facilities at which the MSS activity and emissions occurred;
- D. the date and time of the MSS activity and its duration;
- E. the estimated quantity of each air contaminant, or mixture of air contaminants, emitted with the data and methods used to determine it. The emissions shall be estimated using the methods identified in the permit application, consistent with good engineering practice.

All MSS emissions shall be summed monthly and the rolling 12-month emissions shall be updated on a monthly basis.

- 20. Additional occurrences of startup and shutdowns of heaters authorized by this permit may be authorized under permit by rule only if conducted in compliance with this permit's procedures, emission controls, monitoring, and recordkeeping requirements applicable to the activity.
- 21. Heater EPNs HTR1, HTR2, and HTR3 are exempt from NO_x and CO operating requirements identified in Special Condition 8 during planned startup and shutdown if the following criteria are satisfied.
 - (1) The maximum allowable emission rates (EPNs HTR1-MSS, HTR2-MSS, and HTR3-MSS) are not exceeded.

- (2) The startup period for each heater does not exceed 1 hour in duration and the firing rate does not exceed 75 percent of the design firing rate. The time it takes to complete the shutdown does not exceed 1 hour per heater.
- 22. Heater MSS activities are limited to two heaters starting up or shutting down simultaneously.

Recordkeeping

23. The holder of this permit shall record and maintain all records that are required in the above Special Conditions of this permit. All records and inspection logs shall be maintained at the plant site for a period of at least two years and made available to the TCEQ Executive Director, designated representative, or any local air pollution control program having invisidiation upon request.



Emission Sources - Maximum Allowable Emission Rates

Permit Number 97022

This table lists the maximum allowable emission rates and all sources of air contaminants on the applicant's property covered by this permit. The emission rates shown are those derived from information submitted as part of the application for permit and are the maximum rates allowed for these facilities, sources, and related activities. Any proposed increase in emission rates may require an application for a modification of the facilities covered by this permit.

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Eminion Daint No. (1)	Sauras Nama (2)	Air Contominant Name (2)	Emission R	ates
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	lbs/hour	TPY (4)
C-1 (6)	Regeneration Heater (PBR 55538)	VOC	0.08	0.35
	(I BR 33336)	NO _x	1.48	6.48
		CO	1.22	5.34
		PM ₁₀ /PM _{2.5}	0.11	0.48
		ŠO ₂	0.01	0.04
HTR1 (7)	Regeneration Heater No. 1 (8)	VOC	definition of the state of the	0.44
	110.1(0)	NO _x	0.65	2.87
	Account of the control of the contro	CO Transfer of the control of the co	1.12	4.91
4 \$		PM ₁₀ /PM _{2.5}	0.14	0.61
	in the control of the	SO ₂	0.03	0.12
HTR2 (7)	Regeneration Heater No. 2. (8)	VOC	0.10	0.44
And the second s		NOx	0.65	2.87
		CO	1.12	4.91
		PM ₁₀ /PM _{2.5}	0.14	0.61
	The state of the s	SO ₂	0.03	0.12
HTR3 (7)	Regeneration Heater No. 3 (8)	VOC	0.10	0.44
No. 3 (8)		NO _x	0.65	2.87
		СО	1.12	4.91
		PM ₁₀ /PM _{2.5}	0.14	0.61
		SO ₂	0.03	0.12

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Emission Sources - Maximum Allowable Emission Rates

			Emission Rates	
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	lbs/hour	TPY (4)
	Regeneration Heater Cap (8)	VOC	0.20	0.88
	Cap (6)	NO _x	1.30	5.74
		CO	2.24	9.82
		PM ₁₀ /PM _{2.5}	0.28	1.22
		SO ₂	0.06	0.24
WSAC1 (7)	WSAC System	PM ₁₀ /PM _{2.5}	0.03	0.15
FUG	Process Fugitives (5)	VOC	0.90	3.95
FUG2 (7)	Expansion Process Fugitives (5)	VOC	0.91	3.98
FLARE (6)	Flare	Voc	2.25	8.37
		NO _x	0.44	2.02
		CO	0.85	0.28
	And a second sec	PM ₁₀ /PM _{2,5}	0.01	0.01
	And a second sec	SO ₂	0.01	0.01
FLARE2 (7)	Flare	VOC	2.63	9.69
manunchipitation manunc	American Ame	NOx	0.51	3.91
the state of the s	Amenican de la composition della composition del	CO	0.99	7.65
Annual An	Applications of the control of the c	PM ₁₀ /PM _{2.5}	0.01	0.01
American promotes promot		SO ₂	0.01	0.01
HTR1-MSS (7)	Regeneration Heater No. 1 Startup and	NO _x	1.31	(10)
	Shutdown Emissions (9)	СО	2.24	(10)
HTR2-MSS (7)	Regeneration Heater No. 2 Startup and	NO _x	1.31	(10)
	Shutdown Emissions (9)	СО	2.24	(10)

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
HTR3-MSS (7) Regeneration Heater No. 3 Startup and Shutdown Emissions (9)		NO _x	1.31	(10)
	Shutdown Emissions	СО	2.24	(10)
	Regeneration Heater Startup and Shutdown	NO _x	2.62	(10)
	Emissions Cap (9)	CO	4.48	(10)
SITEWIDE	Sitewide Sources	Individual HAP Total HAPs	And	<10 <25

- (1) Emission point identification either specific equipment designation or emission point number from plot plan.
- (2) Specific point source name. For fugitive sources, use area name or fugitive source name.
- (3) VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1 NO. - total oxides of nitrogen CO - carbon monoxide PM_{10} - total particulate matter equal to or less than 10 microns in diameter, including PM_{2.5}, as $PM_{2.5}$ - particulate matter equal to or less than 2.5 microns in diameter The second secon
 - SO_2 - sulfur dioxide
- HAP - hazardous air pollutant as listed in § 112(b) of the Federal Clean Air Act or Title 40 Code of Federal Regulations Part 63, Subpart C
- (4) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.
- (5) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.
- (6) Emissions from EPNs C-1 and FLARE are authorized until start of operation of the second refrigeration/dehydration unit.
- (7) Emissions from EPNs HTR1, HTR2, HTR3, WSAC1, FUG2, FLARE2, HTR1-MSS, HTR2-MSS, and HTR3-MSS are authorized upon start of operation of the second refrigeration/dehydration unit.
- (8) Hourly and annual routine and MSS emissions from heater EPNs HTR1, HTR2, and HTR3 (excluding hourly NO. and CO during MSS activities) shall not exceed the hourly and annual Regeneration Heater Cap.
- (9) Hourly NO_x and CO emissions during MSS activities from heater EPNs HTR1, HTR2, and HTR3 shall not exceed the Regeneration Heater Startup and Shutdown Emissions Cap.
- (10) Annual NO_x and CO emissions from heater EPNs HTR1-MSS, HTR2-MSS, and HTR3-MSS shall not exceed the routine annual emissions (EPNs HTR1, HTR2, and HTR3).

Date:		